

# MIAMI-DADE COUNTY PRODUCT CONTROL SECTION

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## DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER) BOARD AND CODE ADMINISTRATION DIVISION

### **NOTICE OF ACCEPTANCE (NOA)**

Firestone Building Products Company, LLC 200 4th Ave. South Nashville, TN 37201

### SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami-Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (in Miami-Dade County) and/or the AHJ (in areas other than Miami-Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code including the High Velocity Hurricane Zone of the Florida Building Code.

#### **DESCRIPTION:** Firestone UltraPly TPO SA Single Ply Roof Systems over Concrete Decks.

**LABELING:** Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

**RENEWAL** of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

**TERMINATION** of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

**ADVERTISEMENT:** The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

**INSPECTION:** A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA consists of pages 1 through 96.

The submitted documentation was reviewed by Hamley Pacheco, P.E.

(MIAMI-DADE COUNTY)
APPROVED

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### ROOFING SYSTEM APPROVAL

**Category:** Roofing

Sub-Category: Single Ply Roofing

Material: TPO SA Concrete

Maximum Design Pressure See specific assemblies

# TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT: TABLE 1

		Test	
<b>Product</b>	<b>Dimensions</b>	<b>Specifications</b>	<b>Product Description</b>
UltraPly TPO SA	Various	TAS 131	Reinforced TPO 0.045" or 0.060" thick membrane.
UltraPly TPO Reinforced Curb Corner	Various	TAS 131	TPO curb flashing
UltraPly 18" Curb Flashing	Various	TAS 131	TPO curb flashing
UltraPly TPO Inside/Outside Corner	Various	TAS 131	Molded TPO for corner flashing
UltraPly TPO Large Pipe Flashing	Various	TAS 131	TPO flashing for large round penetrations
UltraPly TPO T-Joint Cover	Various	TAS 131	TPO flashing for T-joints
UltraPly TPO Penetration Kit	Various	TAS 131	A penetration sealing kit for UltraPly TPO
UltraPly TPO Walkway Pad	Various	TAS 131	TPO walkway pad
UltraPly TPO Coated Metal	Various	TAS 131	TPO laminated to hot-dipped galvanized steel for flashing
UltraPly TPO Premium Walkway Pad	Various	TAS 131	TPO walkway pad
UltraPly TPO Reinforced Split Pipe Boot	Various	TAS 131	TPO flashing for round penetrations 1" to 9" in diameter
UltraPly TPO 8" Reinforced Cover Strip	Various	TAS 131	8" wide 60 mil TPO cover strip
UltraPly TPO Universal Pipe Boot	Various	TAS 131	TPO flashing for round penetrations 1" to 6" in diameter
UltraPly TPO Unsupported Flashing	Various	TAS 131	Unreinforced TPO used for flashing
SBS Base	3.3" x 50'	ASTM 6163	Fiberglass reinforced SBS base sheet
SBS Poly Torch Base	39.4" x 33'6"	ASTM D 6222	Polyester reinforced modified bitumen membrane. Torch applied.



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# TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT: TABLE 1

		<u>Test</u>	
<b>Product</b>	<b><u>Dimensions</u></b>	<b>Specifications</b>	<b>Product Description</b>
SBS Glass Torch Base	39.4" x 33'10"	ASTM D 6163	Modified bitumen base sheet with a burn-off film and reinforced with non-woven fiberglass mat.
SBS Premium Base	39.4" x 50'	ASTM D 6164	Polyester reinforced SBS modified bitumen ply with sanded surfaces
SBS Poly Base	39.4" x 50'	ASTM D 6164	Polyester reinforced SBS modified bitumen membrane with sanded surfaces.
MB Base	36 x 108'	ASTM D 4601	Fiberglass reinforced base sheet, asphalt coated on both sides. Applied in hot asphalt or mechanically attached.
BASEGARD SA	39.4" x 65' 3"	ASTM D6163	Fiberglass reinforced SBS modified bitumen, self-adhering base sheet with a smooth sanded surface.
APP 80 Glass Base	39.4" x 65'4"	ASTM D6509	Fiberglass reinforced modified bitumen, smooth surfaced base sheet.
V-Force	45" x 134"	ASTM D 5147, 1876,1970 and ASTM E 96, 2178	A vapor retarder made of SBS modified bitumen adhesive laminated to a woven high density polyethylene top surface
I.S.O. Stick	5 gal & 1500 ml	Proprietary	A dual component polyurethane adhesive.
I.S.O. Twin Pack Insulation Adhesive	1500 ml	Proprietary	A dual component polyurethane adhesive.
I.S.O. Fix II	30 lbs.	Proprietary	A single component polyurethane adhesive.
I.S.O. Spray R	15 gal pail & 55 gal drum	Proprietary	A two-part polyurethane adhesive
SA Primer	5 gal.	Proprietary	Polymer based primer



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### **APPROVED INSULATIONS:**

### TABLE 2

<b>Product Name</b>	<b>Product Description</b>	Manufacturer (With Current NOA)
ISO 95+ GL	Polyisocyanurate foam insulation	Firestone Bldg. Products
ISO 95+ GL Tapered		_
ISOGARD HD	Polyisocyanurate with a coated fiberglass facer	Firestone Bldg. Products
ISOGARD HD Composite	Polyisocyanurate with a coated fiberglass facer composite insulation.	Firestone Bldg. Products
DensDeck Prime	Silicon treated gypsum	Georgia Pacific Gypsum LLC
RESISTA RESISTA Tapered	Polyisocyanurate foam core laminated to a coated fiberglass facer	Firestone Bldg. Products
SECUROCK Gypsum-Fiber Roof Board	Rigid, gypsum-based board stock	United States Gypsum Corp.
GenFlex ISO Insulation GenFlex ISO Insulation Tapered	Polyisocyanurate foam insulation	Firestone Bldg. Products
Coated Glass Facer Coated Glass Facer Tapered	Polyisocyanurate foam insulation	Firestone Bldg. Products
GenFlex HD ISO	Polyisocyanurate with a coated fiberglass facer	Firestone Bldg. Products
GenFlex HD Composite ISO	Polyisocyanurate with a coated fiberglass facer composite insulation.	Firestone Bldg. Products

### **APPROVED FASTENERS:**

Fastener <u>Number</u>	Product <u>Name</u>	TABLE 3 Product Description	<b><u>Dimensions</u></b>	Manufacturer (With Current NOA)
1.	Firestone Heavy-Duty	#15 Fastener for steel, Wood, concrete decks	N/A	Firestone Bldg. Products
2.	Concrete Drive Fastener	Structural concrete fastener	Various	Firestone Bldg. Products
3.	Insulation Fastening Plate	Galvalume insulation plate	3" diameter	Firestone Bldg. Products



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## **EVIDENCE SUBMITTED:**

<b>Test Agency</b>	<b>Test Identifier</b>	<b>Description</b>	<b>Date</b>
Underwriters Laboratories Inc.	03NK34486	UL 790	03/22/05
	200.42.40	4.450	11/02/00
Factory Mutual Research	3004249	4470	11/03/99
Corporation	3014031	4470	07/22/02
	3029384	4470	06/07/10
	3030650	4470	07/10/09
	3033218	4470	08/12/08
	3036642	4470	10/09/09
	3039133	4470	04/07/11
	3036747	4470	02/12/10
	3040535	4470	10/05/10
	3035017	4470	08/22/12
	3038191	4470	08/04/11
	3035560	4470	01/11/10
	3047700	4470	08/16/13
	3047398	4470	08/15/13
	3042666	4470	08/14/12
	3041939	4470	08/14/12
	3044047	4470	05/17/12
	3042665	4470	05/04/12
	797-07096-267	4470	08/22/12
	797-05604-267	4470	06/07/10
	797-05830-267	4470	08/30/10
	797-07680-267	4470	09/12/12
	797-08513-267	4470	06/18/13
Trinity ERD	F8300.07.08	TAS 131/ ASTM D6878	07/30/08
	F8300.11.08-R3	TAS 131/ ASTM D6878	02/25/11
PRI Construction Materials	FBP-038-02-01	ASTM D6164	12/27/10
Technologies, LLC	FBP-038-02-02	ASTM D6164	12/28/10
	FBP-044-02-01, R10	TAS 114 H, J	06/01/17
	FBP-053-02-01	TAS 110/ASTM D6131	10/08/12
	FBP-054-02-04, Rev 1	FM 4474 B/TAS 114 D	02/07/13
	FBP-064-02-01	ASTM D 6509	08/02/12
	FBP-076-02-01	TAS 110	10/23/12
	FBP-085-02-01, R1	FM 4474 D/TAS 114 J	10/04/12
	FBP-115-02-01	ASTM D 1644 & 2196	04/04/13
	FBP-149-02-01	FM 4474 D	12/18/13
	FBP-154-02-02	FM 4474 D	12/18/13
	FBP-158-02-01	FM 4474 D	04/28/14
	FBP-162-02-01	ASTM D 1970	10/02/13
	FBP-165-02-01	FM 4474/TAS 114 J	04/28/14
	FBP-166-02-01	ASTM D6163	05/15/14
	FBP-175-02-01	FM 4474 D/TAS 114 J	04/28/14
	FBP-176-02-01	ASTM D 4601	07/15/14
	FBP-178-02-03	FM 4474 B/TAS 114 D	07/23/14
	FBP-185-02-02	FM 4474 B/TAS 114 D	07/31/14
	FBP-206-02-01	FM 4474 D/TAS 114 J	02/02/15



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<b>Test Agency</b>	<b>Test Identifier</b>	<b>Description</b>	<b>Date</b>
	FBP-208-02-01	TAS 131/ASTM D6878	04/06/15
	FBP-214-02-01.1	ASTM C 1289	11/09/16
	FBP-214-02-02	ASTM C 1289	02/10/15
	FBP-222-02-03	TAS 114 C	04/01/15
	FBP-225-02-01	FM 4474 D/TAS 114 J	03/19/15
	FBP-233-02-03	FM 4474 D/TAS 114 J	06/01/15
	FBP-246-02-01	ASTM C 1289	10/05/15
	FBP-260-02-02	FM 4474 B	10/09/15
	FBP-280-02-01	ASTM C 1289	04/27/16
	FBP-293-02-01	ASTM D 4601	04/27/16
	FBP-315-02-01	ASTM C 1289	10/28/16



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#### APPROVED ASSEMBLIES

Membrane Type: Single Ply, TPO, Reinforced

**Deck Type 3I:** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank.

**System Type A(1):** One or more layers of insulation adhered with approved adhesive; membrane

Fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Base Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft<sup>2</sup>

ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

Minimum: 1" thick N/A N/A

Note: Base insulation shall be adhered to the deck with I.S.O. Twin Pack Insulation Adhesive applied in ½ to ¾ " wide ribbons spaced 12" o.c. or with I.S.O. Stick applied in ¾ to 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Middle Insulation Layer (Optional)

Insulation Fasteners
(Table 3)

Fastener
Density/ft²

ISO 95+ GL, GenFlex ISO Insulation

Minimum 1" thick N/A N/A

Note: Optional middle insulation shall be adhered to the previous insulation layer with I.S.O. Twin Pack Insulation Adhesive applied in ½ to ¾ " wide ribbons spaced 12" o.c. or I.S.O. Stick applied in ¾" to 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

One or more layers

Additional Middle Insulation Layer (Optional) Insulation Fasteners (Table 3) Fastener Density/ft²

ISO 95+ GL Tapered, ISO 95+ GL, RESISTA, GenFlex ISO Insulation Tapered, GenFlex ISO Insulation, Coated Glass Facer

Minimum: 1" thick NA NA

Note: Optional additional middle insulation shall be adhered to the previous insulation layer with I.S.O. Twin Pack Insulation Adhesive applied in  $\frac{1}{2}$  to  $\frac{3}{4}$ " wide ribbons spaced 12" o.cPlease refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Pensity/ft²

**Plywood** 

Minimum 19/32" thick N/A N/A



NOA No.: 15-0209.02 Expiration Date: 06/13/24 Approval Date: 06/13/19 Page 7 of 96 Note: Top Insulation layer shall be adhered to the previous insulation layer with I.S.O. Twin Pack Insulation Adhesive applied in  $\frac{1}{2}$  to  $\frac{3}{4}$  " wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** -45 psf. (See General Limitation #9)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank.

System Type A(2): Vapor Barrier and insulation adhered with approved adhesive; membrane fully

adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

**Vapor Barrier** V-Force self-adhered to the primed concrete deck.

Note: Concrete deck shall be primed with primer-Force WB Primer at a rate of 150-200 ft<sup>2</sup>/gal and allowed to dry prior to application of Vapor Barrier.

Insulation Layer Insulation Fasteners Fastener (Table 3) Fastener Density/ft²

ISO 95+ GL, GenFlex ISO Insulation

Minimum: 1.5" thick N/A N/A

Note: Insulation shall be adhered to the Vapor Barrier using I.S.O. Spray R, I.S.O. Stick or I.S.O. Twin Pack Adhesive, applied in 3/4" to 1" wide ribbons spaced 12" on center. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** -57.5 psf. using I.S.O. Stick in ribbons <sup>3</sup>/<sub>4</sub>" - 1" wide spaced 12" o.c. (See

**Pressure:** General Limitation #9)

-97.5 psf using I.S.O. Twin Pack Adhesive in ribbons <sup>3</sup>/<sub>4</sub>" – 1" wide spaced 12"

o.c. (See General Limitation #9)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank

**System Type A(3):** Base layer of insulation mechanically fastened; top layer adhered with approved

adhesive.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

**Vapor Barrier** One ply of BASEGARD SA is self-adhered to a concrete deck primed with SA

Primer applied at a rate of 200 ft<sup>2</sup>/gal.

One or more layers

Base Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft<sup>2</sup>

ISO 95+ GL, GenFlex ISO Insulation

Minimum 1-1/2" thick N/A N/A

Note: Base Insulation layer shall be adhered to the deck with I.S.O. Twin Pack Insulation Adhesive applied in ½"to ¾" wide ribbons spaced 12" o.c. or I.S.O. Stick applied in ¾" to 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer Insulation Fasteners (Table 3) Fastener Density/ft<sup>2</sup>

ISOGARD HD, GenFlex HD ISO

Minimum ½" thick N/A N/A

ISOGARD HD Composite, GenFlex HD Composite ISO

Minimum 2" thick N/A N/A

Note: Top insulation layer shall be adhered to base insulations with I.S.O. Twin Pack Insulation Adhesive in continuous ½" to ¾" wide beads spaced 12" o.c. or I.S.O. Stick applied in continuous ¾" to 1" wide ribbons spaced 12" o.c. See Roofing Application Standard RAS 117 for fastening details.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 3"

wide side laps.

**Maximum Design** 

**Pressure:** -90 psf. (See General Limitation #7)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** 2500 psi or greater structural concrete or concrete plank

System Type A(4): One or more layers of insulation adhered with approved adhesive; membrane fully

adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

 $\begin{array}{ccc} \text{Base Insulation Layer} & \text{Insulation Fasteners} & \text{Fastener} \\ & (\text{Table 3}) & \text{Density/ft}^2 \end{array}$ 

ISO 95+ GL, GenFlex ISO Insulation

Minimum 1.5" thick N/A N/A

Note: Base insulation shall be adhered to the deck with I.S.O. Twin Pack Insulation Adhesive applied in  $\frac{1}{2}$  to  $\frac{3}{4}$  " wide ribbons, spaced as listed below, Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft<sup>2</sup>

DensDeck Prime

Minimum <sup>1</sup>/<sub>4</sub>" thick N/A N/A

Note: All subsequent layers of insulation shall be adhered to the previous layer of insulation with I.S.O. Twin Pack Insulation Adhesive applied in  $\frac{1}{2}$  to  $\frac{3}{4}$ " wide ribbons Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** -127.5 psf. using I.S.O Twin Pack Insulation Adhesive in ribbons spaced 12" o.c.

(See General Limitation #9)

-187.5 psf. using I.S.O Twin Pack Insulation Adhesive in ribbons spaced 8" o.c.

(See General Limitation #9)

-247.5 psf. using I.S.O Twin Pack Insulation Adhesive in ribbons spaced 4" o.c.

(See General Limitation #9)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank.

**System Type A(5):** Vapor Barrier and insulation adhered with approved adhesive; membrane

adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

**Vapor Barrier:** One ply of APP 80 Glass Base torch adhered to the concrete deck.

Base Insulation Layer Insulation Fasteners Fastener

(Table 3) Density/ft<sup>2</sup>

ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

Minimum: 1-½" thick N/A N/A

Note: Base insulation shall be adhered to the vapor barrier I.S.O. Twin Pack Insulation Adhesive applied in ½ to ¾ " wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Middle Insulation Layer (Optional) Insulation Fasteners Fastener

(Table 3) Density/ft<sup>2</sup>

ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

Minimum: 1-1/2" thick N/A N/A

Note: Optional Middle insulation shall be adhered to the base insulation layer with I.S.O. Twin Pack Insulation Adhesive applied in  $\frac{1}{2}$  to  $\frac{3}{4}$  " wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer (Optional)

Insulation Fasteners
(Table 3)

Fastener
Density/ft²

ISO 95+ GL Tapered, RESISTA Tapered, GenFlex ISO Insulation Tapered, Coated Glass Facer Tapered

Minimum: ½" thick with a ¼" per ft. taper N/A N/A

Note: Optional Top insulation shall be adhered to the previous insulation layer with I.S.O. Twin Pack Insulation Adhesive applied in  $\frac{1}{2}$  to  $\frac{3}{4}$  " wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** -142.5 psf. (See General Limitation #9)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank.

**System Type A(6):** One or more layers of insulation adhered with approved adhesive; membrane

Fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Base Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft<sup>2</sup>

ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

Minimum: 1" thick N/A N/A

Note: Base insulation shall be adhered to the deck with I.S.O. Twin Pack Insulation Adhesive applied in ½ to ¾ " wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Middle Insulation Layer (Optional)

Insulation Fasteners
(Table 3)

Fastener
Density/ft²

ISO 95+ GL, GenFlex ISO Insulation

Minimum: 1" thick N/A N/A

Note: Optional Middle insulation shall be adhered to the base insulation layer with I.S.O. Twin Pack Insulation Adhesive applied in  $\frac{1}{2}$  to  $\frac{3}{4}$  " wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer (Optional)

Insulation Fasteners
(Table 3)

Fastener
Density/ft²

ISO 95+ GL Tapered, RESISTA Tapered, GenFlex ISO Insulation Tapered, Coated Glass Facer

**Tapered** 

Minimum: ½" thick with a ¼" per ft. taper N/A N/A

Note: Optional Top insulation shall be adhered to the previous insulation layer with I.S.O. Twin Pack Insulation Adhesive applied in  $\frac{1}{2}$  to  $\frac{3}{4}$  " wide ribbons spaced as listed below Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** -142.5 psf. (See General Limitation #9)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank.

**System Type A(7):** One or more layers of insulation adhered with approved adhesive; membrane

Fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Base Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft<sup>2</sup>

ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

Minimum: 1" thick N/A N/A

Note: Base insulation shall be adhered to the deck with I.S.O. Stick applied in 3/4" to 1" wide ribbons spaced 12" o.c., Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Middle Insulation Layer (Optional)

Insulation Fasteners
(Table 3)

Fastener
Density/ft²

ISO 95+ GL, GenFlex ISO Insulation

Minimum: 1" thick N/A N/A

Note: Optional Middle insulation shall be adhered to the base insulation layer with I.S.O. Stick Pack Insulation Adhesive applied in 3/4" to 1" wide ribbons spaced 12" o.cPlease refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer (Optional)

Insulation Fasteners
(Table 3)

Fastener
Density/ft²

ISO 95+ GL, ISO 95+ GL Tapered, RESISTA, RESISTA Tapered, GenFlex ISO Insulation, GenFlex ISO Insulation Tapered, Coated Glass Facer, Coated Glass Facer Tapered

Minimum: 1" thick with a ¼" per ft. taper N/A N/A

Note: Optional Top insulation shall be adhered to the previous insulation layer with I.S.O. Stick applied in 3/4" to 1" wide ribbons spaced 12" o.cPlease refer to Roofing Application Standard RAS 117 for insulation attachment.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** -142.5 psf. (See General Limitation #9)



NOA No.: 15-0209.02 Expiration Date: 06/13/24 Approval Date: 06/13/19 Page 14 of 96 **Membrane Type:** Single Ply, Thermoplastic, TPO

**Deck Type 3I:** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank.

System Type A(8): One or more layers of insulation adhered with approved adhesive; membrane

fully adhered.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer Insulation Fasteners Fastener (Table 3) Pensity/ft<sup>2</sup>

ISO 95+ GL, GenFlex ISO Insulation

Minimum 1.5" thick N/A N/A

Note: Base Insulation layer shall be adhered to the deck with I.S.O. Twin Pack Insulation Adhesive applied in ½" to ¾" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Middle Insulation Layer (Optional)

Insulation Fasteners
(Table 3)

Fastener
Density/ft²

ISO 95+ GL, GenFlex ISO Insulation,

Minimum 1.5" thick N/A N/A

Note: Optional Middle Insulation layer shall be adhered to the Base Insulation Layer with I.S.O. Twin Pack Insulation Adhesive applied in ½" to ¾" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Pensity/ft²

ISOGARD HD, GenFlex HD ISO

Minimum ½" thick N/A N/A

Note: Top Insulation layer shall be adhered to the previous layer of roof insulation with I.S.O. Twin Pack Insulation Adhesive applied in ½" to ¾" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** -157.5 psf (See General Limitation #9)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank.

**System Type A(9):** One or more layers of insulation adhered with approved adhesive; membrane

fully adhered.

### All General and System Limitations apply.

One or more layers of any of the following insulations.

 $\begin{array}{ccc} \text{Insulation Layer} & \text{Insulation Fasteners} & \text{Fastener} \\ & & & & & & & & \\ & & & & & & & & \\ & & & & & & & & \\ & & & & & & & & \\ & & & & & & & & \\ & & & & & & & & \\ & & & & & & & & \\ & & & & & & & & \\ & & & & & & & & \\ & & & & & & & & \\ & & & & & & & & \\ & & & & & & & & \\ & & & & & & & & \\ & & & & & & & & \\ & & & & & & & & \\ & & & & & & & & \\ & & & & & & & \\ & & & & & & & \\ & & & & & & & \\ & & & & & & & \\ & & & & & & & \\ & & & & & & & \\ & & & & & & & \\ & & & & & & \\ & & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & \\ & & & & \\ & & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & \\ & & & \\ & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & \\ & & & \\ & & \\ & & & \\ & & \\ & & \\ & & & \\ & & \\ & & & \\ & & \\ & & \\ & & \\ & &$ 

ISO 95+ GL, GenFlex ISO Insulation

Minimum: 1.5" thick N/A N/A

Note: All Insulation layers shall be adhered to the deck with I.S.O. Twin Pack Insulation Adhesive applied in 1/2 to 3/4 in. wide ribbons spaced 12" o.c.. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** -157.5 psf (See General Limitation #9)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank.

System Type A(10): One or more layers of insulation adhered with approved adhesive; membrane

adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Insulation Insulation Fasteners (Table 3) Fastener Density/ft²

ISO 95+ GL, GenFlex ISO Insulation

Minimum 1" thick N/A N/A

Note: Base insulation shall be adhered to the deck with I.S.O. Spray R, I.S.O. Fix II or I.S.O. Stick applied in <sup>3</sup>/<sub>4</sub>" to 1" wide ribbons, spaced 12" o.c. or I.S.O. Twin Pack Insulation Adhesive applied in continuous <sup>1</sup>/<sub>2</sub>" to <sup>3</sup>/<sub>4</sub>" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** -145 psf. (See General Limitation #9)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank.

System Type A(11): One or more layers of insulation adhered with approved adhesive; membrane

adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)

Insulation Fasteners
(Table 3)

Fastener
Density/ft²

ISO 95+ GL, GenFlex ISO Insulation

Minimum 1" thick N/A N/A

Note: Optional Base layer of insulation shall be adhered to the deck with I.S.O. Spray R, I.S.O. Fix II or I.S.O. Stick applied in ¾ to 1" wide ribbons, spaced 12" o.c. or I.S.O. Twin Pack Insulation Adhesive applied in ½ to ¾" wide ribbons, spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer Insulation Fasteners (Table 3) Fastener Density/ft<sup>2</sup>

**DensDeck Prime** 

Minimum 1/4" thick N/A N/A

Note: Top layer of insulation shall be adhered with I.S.O. Stick applied in ¾ to 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** -160 psf. (See General Limitation #9)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** 2500 psi or greater structural concrete or concrete plank

**System Type A(12):** One or more layers of insulation adhered with approved adhesive; membrane

fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Base Insulation Layer
Insulation Fasteners
(Table 3)
Fastener
Density/ft²
ISO 95+ GL, GenFlex ISO Insulation
Minimum 1.5" thick
N/A
N/A

Note: Insulation shall be adhered to the deck with I.S.O. Twin Pack Insulation Adhesive applied in ½ to ¾" wide ribbons spaced as listed below Please refer to Roofing Application Standard RAS 117 for insulation attachment

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

Maximum Design -165 psf. using I.S.O. Twin Pack Insulation Adhesive with ribbons spaced 12"

**Pressure:** o.c. (See General Limitation #9)

-210 psf. using I.S.O. Twin Pack Insulation Adhesive with ribbons spaced 8"

o.c. (See General Limitation #9)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank.

**System Type A(13):** Vapor Barrier and insulation adhered with approved adhesive; membrane

adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

**Vapor Barrier:** One ply of MB Base, SBS Base, SBS Poly Base or SBS Premium Base fully

adhered to the concrete deck with a full mopping of hot asphalt applied at a rate

of 20 - 25 lbs./square.

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
ISO 95+ GL, GenFlex ISO Insulation	(14610-0)	Donsiejiio
Minimum 1" thick	N/A	N/A
Middle Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
Tapered ISO 95+ GL, Tapered GenFlex ISO Insulation		-
Minimum 1/2" thick with a 1/4" per ft. taper	N/A	N/A
Top Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
ISOGARD HD, GenFlex HD ISO	,	·
Minimum ½" thick	N/A	N/A
Plywood		
Minimum 19/32" thick	N/A	N/A
DensDeck Prime		
Minimum 1/4" thick	N/A	N/A

Note: Insulation shall be adhered using I.S.O. Twin Pack Insulation Adhesive in continuous ½" to ¾" wide beads spaced 12" o.c., I.S.O. Fix II or I.S.O. Stick applied in continuous ¾" to 1" wide ribbons spaced 12" o.c. See Roofing Application Standard RAS 117 for insulation attachment.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** -172.5 psf. (See General Limitation #9)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank.

**System Type A(14):** Vapor Barrier and insulation adhered with approved adhesive; membrane

adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

**Vapor Barrier** One ply of MB Base, SBS Base, SBS Poly Base or SBS Premium Base fully

adhered to the concrete deck with a full mopping of hot asphalt applied at a rate

of 20 - 25 lbs./square.

One or more layers of any of the following insulations.

Base Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft<sup>2</sup>

ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

Minimum: 1" thick N/A N/A

Note: Base Insulation shall be adhered using I.S.O. Twin Pack Insulation Adhesive in continuous ½" to ¾" wide beads spaced 12" o.c. See Roofing Application Standard RAS 117 for insulation attachment.

Middle Insulation Layer (Optional)

Insulation Fasteners

Fastener

(Table 3) Density/ft<sup>2</sup>

Tapered ISO 95+ GL, ISO 95+ GL, RESISTA Tapered, RESISTA, GenFlex ISO Insulation, Tapered GenFlex ISO Insulation, Coated Glass Facer, Coated Glass Facer Tapered

Minimum: 1" thick N/A N/A

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft<sup>2</sup>

**DensDeck Prime** 

Minimum: <sup>1</sup>/<sub>4</sub>" thick N/A N/A

**Plywood** 

Minimum 19/32" thick N/A N/A

Note: Insulation shall be adhered using I.S.O. Twin Pack Insulation Adhesive in continuous ½" to ¾" wide beads spaced 12" o.c., See Roofing Application Standard RAS 117 for insulation attachment.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

Maximum Design -45 psf (See General Limitation #9) for Plywood

**Pressure:** -60 psf. (See General Limitation #9) for DensDeck Prime



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Deck Type 3I: Concrete, Insulated

Min. 2500 psi structural concrete or concrete plank. **Deck Description:** 

System Type A(15): Vapor Barrier and insulation adhered with approved adhesive; membrane

adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Barrier One ply of MB Base, SBS Base, SBS Poly Base or SBS Premium base fully

adhered to the concrete deck with a full mopping of hot asphalt applied at a rate

of 20 - 25 lbs./square.

One or more layers of any of the following insulations.

**Insulation Layer Insulation Fasteners** Fastener Density/ft<sup>2</sup> (Table 3)

ISOGARD HD, GenFlex HD ISO

Minimum: ½" thick N/A N/A

**DensDeck Prime** 

Minimum: 1/4" thick N/A N/A

Note: Insulation shall be adhered using I.S.O. Twin Pack Insulation Adhesive in continuous ½" to 3/4" wide beads spaced 12" o.c., I.S.O. Fix II or I.S.O. Stick applied in continuous 3/4" to 1" wide ribbons spaced 12" o.c. See Roofing Application Standard RAS 117 for insulation attachment.

Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" **Membrane:** 

wide side laps.

**Maximum Design** 

**Pressure:** -172.5 psf. (See General Limitation #9)



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Deck Type 3I: Concrete, Insulated

**Deck Description:** 2500 psi or greater structural concrete or concrete plank

System Type A(16): One or more layers of insulation adhered with approved asphalt; membrane

Fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

**Base Insulation Layer Insulation Fasteners Fastener** Density/ft<sup>2</sup> (Table 3) ISO 95+ GL, GenFlex ISO Insulation

Minimum 1.5" thick N/A N/A

**Top Insulation Laver (Optional) Insulation Fasteners** Fastener (Table 3) Density/ft<sup>2</sup>

Tapered ISO 95+ GL, Tapered GenFlex ISO Insulation

Minimum ½" thick start with a ¼" per ft. taper N/A N/A

Note: Base insulation shall be adhered to the deck in full mopping of approved asphalt within the EVT range and at a rate of 20 to 40 lbs/100 ft<sup>2</sup>. All subsequent layers of insulation shall be adhered to the previous layer of insulation in full mopping of approved asphalt within the EVT range and at a rate of 20 to 40 lbs/100 ft<sup>2</sup>. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels used as a top layer shall be placed with the polyisocyanurate side facing down.

Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" **Membrane:** 

wide side laps.

**Maximum Design** 

**Pressure:** -180 psf. without cover board (See General Limitation #9)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank.

**System Type A(17):** One or more layers of insulation adhered with approved adhesive; membrane

Fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Base Insulation Layer Insulation Fasteners Fastener (Table 3) Pensity/ft²

ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

Minimum: 1" thick N/A N/A

Note: Base insulation shall be adhered to the deck with I.S.O. Stick applied in <sup>3</sup>/<sub>4</sub>" to 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Middle Insulation Layer (Optional)

Insulation Fasteners
(Table 3)

Fastener
Density/ft²

ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

Minimum 1" thick N/A N/A

Note: Optional middle insulation shall be adhered to the previous insulation layer with I.S.O. Stick applied in 3/4 to 1 " wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Additional Middle Insulation Layer (Optional) Insulation Fasteners (Table 3) Fastener Density/ft<sup>2</sup>

ISO 95+ GL Tapered, ISO 95+ GL, RESISTA Tapered, RESISTA, GenFlex ISO Insulation, Tapered GenFlex ISO Insulation, Coated Glass Facer, Coated Glass Facer Tapered

Minimum: 1" thick NA NA

Note: Optional additional middle insulation shall be adhered to the previous insulation layer with I.S.O. Stick applied in 3/4 to 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Pensity/ft<sup>2</sup>

ISOGARD HD, GenFlex HD ISO

Minimum ½" thick N/A N/A



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**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 3"

wide side laps.

**Maximum Design** 

**Pressure:** -187.5 psf (See General Limitation #9)



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Single Ply, TPO, Reinforced **Membrane Type:** 

Deck Type 3I: Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank.

Vapor Barrier and insulation adhered with approved adhesive; membrane fully System Type A(18):

adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Barrier: V-Force self-adhered to the primed concrete deck with 3" wide side lap.

Note: Concrete deck shall be primed with V-Force WB Primer at a rate of 0.25 gal/100 ft<sup>2</sup> and allowed to dry prior to application of Vapor Barrier.

**Base Insulation Layer Insulation Fasteners Fastener** (Table 3) Density/ft<sup>2</sup>

ISO 95+ GL, GenFlex ISO Insulation

Minimum: 1/2" thick N/A N/A

Note: Base insulation layer shall be adhered to the Vapor Barrier using I.S.O. Spray R ribbon adhesive, applied in 3/4" to 1" wide ribbons spaced 12" on center. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Top Insulation Layer Insulation Fasteners Fastener** (Table 3) Density/ft<sup>2</sup>

**DensDeck Prime** 

Minimum 1/4" thick N/A N/A

Note: Top insulation layer shall be adhered to the Base insulation layer using I.S.O. Spray R ribbon adhesive, applied in 3/4" to 1" wide ribbons spaced 12" on center. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** -187.5 psf. (See General Limitation #9)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank.

**System Type A(19):** One or more layers of insulation adhered with approved adhesive; membrane

Fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Base Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft<sup>2</sup>

ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

Minimum: 1" thick N/A N/A

Note: Base insulation shall be adhered to the deck with I.S.O. Stick applied in ¾" to 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Middle Insulation Layer (Optional)

Insulation Fasteners
(Table 3)

Fastener
Density/ft²

ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

Minimum: 1" thick N/A N/A

Note: Optional Middle insulation shall be adhered to the base insulation layer with I.S.O. Stick applied in 3/4 to 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Additional Middle Insulation Layer (Optional) Insulation Fasteners (Table 3) Fastener Density/ft²

ISO 95+ GL, ISO 95+ GL Tapered, RESISTA, RESISTA Tapered, GenFlex ISO Insulation, Tapered, GenFlex ISO Insulation, Coated Glass Facer, Coated Glass Facer Tapered

Minimum: 1" thick with a ¼" per ft. taper N/A N/A

Note: Additional Optional Middle insulation shall be adhered to the base insulation layer with I.S.O. Stick applied in 3/4 to 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.



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**DensDeck Prime** 

Minimum: 1/4" thick N/A N/A

Note: Top insulation shall be adhered to the previous insulation layer with I.S.O. Stick applied in 3/4 to 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** -45 psf. (See General Limitation #9)



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Single Ply, TPO, Reinforced **Membrane Type:** 

Deck Type 3I: Concrete, Insulated

**Deck Description:** 2500 psi or greater structural concrete or concrete plank

System Type A(20): One or more layers of insulation adhered with approved adhesive; membrane

Fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Use Two (2) base insulation layers

**Base Insulation Laver Insulation Fasteners Fastener** (Table 3) Density/ft<sup>2</sup>

ISO 95+ GL, GenFlex ISO Insulation

Minimum 1.5" thick N/A N/A

Note: Base Insulation layer shall be adhered to the deck with I.S.O. Twin Pack Insulation Adhesive applied in ½" to ¾" wide ribbons spaced 8" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Top Insulation Layer Insulation Fasteners Fastener** Density/ft<sup>2</sup> (Table 3)

**DensDeck Prime** 

Minimum 1/4" thick N/A N/A

Note: All subsequent layers of insulation shall be adhered to the previous layer of insulation using I.S.O. Twin Pack Insulation Adhesive applied in 1/2" to 3/4" wide ribbons spaced 8" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulations listed as the base layer shall only be used as the base layer with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.

Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" Membrane:

wide side laps.

**Maximum Design** 

**Pressure:** -195 psf. (See General Limitation #9)



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Deck Type 3I: Concrete, Insulated

Min. 2500 psi structural concrete or concrete plank. **Deck Description:** 

System Type A(21): Insulation adhered with approved adhesive; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

**Base Insulation Laver Insulation Fasteners Fastener** Density/ft<sup>2</sup> (Table 3)

ISO 95+ GL, GenFlex ISO Insulation

Minimum: 1.5" thick N/A N/A

Note: Base insulation shall be adhered using ISO Spray R ribbon, applied in 3/4" to 1" wide ribbons spaced 12" on center. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Top Insulation Layer Insulation Fasteners Fastener** (Table 3) Density/ft<sup>2</sup>

**DensDeck Prime** 

Minimum 1/4" thick N/A N/A

Note: Top insulation shall be adhered using ISO Spray R ribbon, applied in 3/4" to 1" wide ribbons spaced 12" on center. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** -205 psf. (See General Limitation #9)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank.

**System Type A(22):** Insulation adhered with approved adhesive; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft<sup>2</sup>

ISO 95+ GL, GenFlex ISO Insulation

Minimum: 1.5" thick N/A N/A

Note: Base insulation shall be adhered using ISO Spray R ribbon, applied in ¾" to 1" wide ribbons spaced 12" on center. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** -210 psf. (See General Limitation #9)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank.

**System Type A(23):** One or more layers of insulation adhered with approved adhesive; membrane

Fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Base Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft<sup>2</sup>

ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

Minimum: 1" thick N/A N/A

Note: Base insulation shall be adhered to the deck with I.S.O. Twin Pack Insulation Adhesive applied in  $\frac{1}{2}$  to  $\frac{3}{4}$  " wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Middle Insulation Layer (Optional)

Insulation Fasteners
(Table 3)

Fastener
Density/ft²

ISO 95+ GL, GenFlex ISO Insulation

Minimum: 1" thick N/A N/A

Note: Optional Middle insulation shall be adhered to the base insulation layer with I.S.O. Twin Pack Insulation Adhesive applied in ½ to ¾ " wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

One or two layers of the following:

Additional Middle Insulation Layer (Optional) Insulation Fasteners (Table 3) Fastener Density/ft²

 $ISO\ 95+\ GL\ Tapered, ISO\ 95+\ GL,\ RESISTA,\ GenFlex\ ISO\ Insulation,\ Tapered\ GenFlex\ ISO\ And\ Anticological Conference of the State of th$ 

**Insulation, Coated Glass Facer** 

Minimum: ½" thick with a ¼" per ft. taper N/A N/A

Note: Additional Optional Middle insulation shall be adhered to the base insulation layer with I.S.O. Twin Pack Insulation Adhesive applied in  $\frac{1}{2}$  to  $\frac{3}{4}$  " wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Additional Second Middle Insulation Layer Insulation Fasteners (Optional) (Table 3) Fastener Density/ft²

ISO 95+ GL, ISO 95+ GL Tapered, RESISTA, RESISTA Tapered, GenFlex ISO Insulation, Tapered GenFlex ISO Insulation, Coated Glass Facer, Coated Glass Facer Tapered

Minimum: ½" thick with a ¼" per ft. taper N/A N/A



NOA No.: 15-0209.02 Expiration Date: 06/13/24 Approval Date: 06/13/19 Page 32 of 96 Note: Optional Second Middle insulation shall be adhered to the previous insulation layer with I.S.O. Twin Pack Insulation Adhesive applied in  $\frac{1}{2}$  to  $\frac{3}{4}$ " wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation layer Insulation Fasteners Fastener (Table 3) Density/ft<sup>2</sup>

**DensDeck Prime** 

Minimum <sup>1</sup>/<sub>4</sub>" thick N/A N/A

Note: Top insulation of insulation shall be adhered to the previous layer of insulation using I.S.O. Twin Pack Insulation Adhesive applied in  $\frac{1}{2}$ " to  $\frac{3}{4}$ " wide ribbons spaced 8" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** -240 psf. (See General Limitation #9)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank.

**System Type A(24):** Vapor Barrier and insulation adhered with approved adhesive; membrane fully

adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

**Vapor Barrier:** SBS Poly Torch Base or SBS Glass Torch Base membrane is torch adhered to

the primed concrete deck.

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer at a rate of 0.75 - 1 gal/100 ft<sup>2</sup> and allowed to dry prior to application of Vapor Barrier.

Base Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft<sup>2</sup>

ISO 95+ GL, GenFlex ISO Insulation

Minimum 1.5" thick N/A N/A

NOTE: Base insulation shall be adhered to the Vapor Barrier using ISO Twin Pack Insulation Adhesive, applied in ½" to ¾" wide ribbons spaced 12" on center. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Middle Insulation Layer (Optional)

Insulation Fasteners
(Table 3)

Fastener
Density/ft²

ISO 95+ GL, GenFlex ISO Insulation

Minimum: 1.5" thick N/A N/A

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Pensity/ft²

**DensDeck Prime** 

Minimum: ¼" thick N/A N/A

Note: All subsequent layers of insulation shall be adhered to the previous layer of insulation using I.S.O. Twin Pack Insulation Adhesive applied in  $\frac{1}{2}$ " to  $\frac{3}{4}$ " wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** -232.5 psf. (See General Limitation #9)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** 2500 psi or greater structural concrete or concrete plank

**System Type A(25):** One or more layers of insulation adhered with approved adhesive; membrane

fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Base Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft<sup>2</sup>

ISO 95+ GL, GenFlex ISO Insulation

Minimum 1.5" thick N/A N/A

Top Insulation Layer Insulation Fasteners Fastener

(Table 3) Density/ft<sup>2</sup>

**DensDeck Prime** 

Minimum ¼" thick N/A N/A

Note: Base insulation shall be adhered to the deck, and top insulation shall be adhered to the base insulation, in full mopping of approved asphalt within the EVT range and at a rate of 20 to 25 lbs/sq. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** -247.5 psf. with coverboard (See General Limitation #9)



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Deck Type 3I: Concrete, Insulated

Min. 2500 psi structural concrete or concrete plank. **Deck Description:** 

System Type A(26): One or more layers of insulation adhered with approved adhesive; membrane

fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Base Insulation Layer	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>

ISO 95+ GL, GenFlex ISO Insulation

Minimum: 1.5" thick N/A N/A

**Middle Insulation Layer Insulation Fasteners Fastener** 

(Table 3)

Density/ft<sup>2</sup>

ISO 95+ GL, GenFlex ISO Insulation

Minimum: 1.5" thick N/A N/A

**Insulation Fasteners Fastener Top Insulation Layer** 

(Table 3)

Density/ft<sup>2</sup>

**DensDeck Prime** 

Minimum: 1/4" thick N/A N/A

Note: (Optional) Concrete deck shall be optionally primed with ASTM D 41 asphalt primer at a rate of ¾ to 1 gal/sq. and allowed to dry prior to application of insulation. Insulation shall be adhered to the deck in full mopping of approved asphalt within the EVT range and at a rate of 20 to 25 lbs/sq. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** -247.5 psf. (See General Limitation #9)



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Deck Type 3I: Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank.

One or more layers of insulation adhered with approved adhesive; membrane System Type A(27):

fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

**Base Insulation Layer Insulation Fasteners Fastener** Density/ft<sup>2</sup> (Table 3)

ISO 95+ GL, GenFlex ISO Insulation

Minimum 1.5" thick N/A N/A

Note: Base Insulation layer shall be adhered to the deck with I.S.O. Twin Pack Insulation Adhesive applied in 1/2" to 3/4" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Middle Insulation Layer (Optional) Insulation Fasteners Fastener** (Table 3) Density/ft<sup>2</sup> ISO 95+ GL, GenFlex ISO Insulation

Minimum 1.5" thick N/A N/A

**Top Insulation Layer Insulation Fasteners Fastener** (Table 3) Density/ft<sup>2</sup>

ISOGARD HD, GenFlex HD ISO

Minimum ½" thick N/A N/A

Note: Optional Middle Insulation layer shall be adhered to the Base Insulation layer with I.S.O. Twin Pack Insulation Adhesive applied in 1/2" to 3/4" wide ribbons spaced 12" o.c. Top Insulation layer shall be adhered to the previous layer with Twin Pack Insulation Adhesive applied in ½" to 34" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 3" **Membrane:** 

wide side laps.

**Maximum Design** 

-247.5 psf. (See General Limitation #9) **Pressure:** 



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**Membrane Type:** Single Ply, Thermoplastic, TPO

**Deck Type 3I:** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank.

System Type A(28): One or more layers of insulation adhered with approved adhesive; membrane

fully adhered.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer Insulation Fasteners Fastener (Table 3) Pensity/ft<sup>2</sup>

ISO 95+ GL, GenFlex ISO Insulation

Minimum 1.5" thick N/A N/A

Note: Base Insulation Layer shall be adhered with I.S.O. Fix II, I.S.O. Stick applied in continuous <sup>3</sup>/<sub>4</sub>" to 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

(Optional) Middle Insulation Layer Insulation Fasteners (Table 3) Fastener Density/ft<sup>2</sup>

ISO 95+ GL, GenFlex ISO Insulation

Minimum 1.5" thick N/A N/A

Note: Optional Middle Insulation Layer shall be adhered with I.S.O. Fix II or I.S.O. Stick applied in continuous 3/4 to 1 in. wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer Insulation Fasteners (Table 3) Fastener Density/ft<sup>2</sup>

ISOGARD HD, GenFlex HD ISO

Minimum ½" thick N/A N/A

Note: Top Insulation layer shall be adhered with I.S.O. Fix II or I.S.O. Stick applied in continuous 3/4 to 1 in. wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation Adhesive

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** -300 psf (See General Limitation #9)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank.

System Type A(29): One or more layers of insulation adhered with approved adhesive; membrane

fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulation.

Insulation Insulation Fasteners Fastener (Table 3) Density/ft<sup>2</sup>

ISOGARD HD, GenFlex HD ISO

Minimum ½" thick N/A N/A

Note: All insulation layers shall be adhered with I.S.O. Fix II applied in continuous 3/4" to 1" wide ribbons spaced 4" o.c. or I.S.O. Stick applied in continuous 3/4" to 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 3"

wide side laps.

**Maximum Design** 

**Pressure:** -300 psf. (See General Limitation #9)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank.

System Type A(30): One or more layers of insulation adhered with approved adhesive; membrane

fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Base Insulation Layer Insulation Fasteners (Table 3) Fastener Density/ft<sup>2</sup>

**RESISTA, Coated Glass Facer** 

Minimum 1.5" thick N/A N/A

Note: Base insulation shall be adhered to the deck with I.S.O. Twin Pack Insulation Adhesive applied in ½ to ¾ in. wide ribbons spaced 6" o.c. or with I.S.O. Stick or I.S.O. Fix II applied in ¾" to 1" wide ribbons, spaced 6" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Middle Insulation Layer (Optional)

Insulation Fasteners
(Table 3)

Fastener
Density/ft²

**RESISTA**, Coated Glass Facer

Minimum 1.5" thick N/A N/A

Note: Optional middle insulation layer shall be adhered to the previous layer of insulation using the same method of adhesion as the base layer. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer (Optional)

Insulation Fasteners (Table 3)

Fastener Density/ft²

ISOGARD HD, GenFlex HD ISO

Minimum ½" thick N/A N/A

Note: Optional top layer of insulation shall be adhered with I.S.O. Stick or I.S.O. Fix II applied in continuous 3/4" to 1" wide ribbons spaced 6" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 3"

wide side laps.

Maximum Design -360 psf. (See General Limitation #9) TPO SA adhered to RESISTA
Pressure: -300 psf. (See General Limitation #9) TPO SA adhered to ISOGARD HD



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank.

**System Type A(31):** One or more layers of insulation adhered with approved adhesive; membrane

Fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Base Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft<sup>2</sup>

ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

Minimum: 1" thick N/A N/A

Note: Base insulation shall be adhered to the deck with I.S.O. Twin Pack Insulation Adhesive applied in  $\frac{1}{2}$  to  $\frac{3}{4}$  " wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Middle Insulation Layer (Optional)

Insulation Fasteners
(Table 3)

Fastener
Density/ft²

ISO 95+ GL, GenFlex ISO Insulation

Minimum 1" thick N/A N/A

Note: Optional middle insulation shall be adhered to the previous insulation layer with I.S.O. Twin Pack Insulation Adhesive applied in ½ to ¾ " wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Additional Middle Insulation Layer (Optional) Insulation Fasteners (Table 3) Fastener Density/ft²

ISO 95+ GL Tapered, ISO 95+ GL, RESISTA, GenFlex ISO Insulation Tapered, GenFlex ISO Insulation, Coated Glass Facer

Minimum 1" thick NA NA NA

Note: Optional second additional middle insulation shall be adhered to the previous insulation layer with I.S.O. Twin Pack Insulation Adhesive applied in  $\frac{1}{2}$  to  $\frac{3}{4}$  " wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Additional Second Middle Insulation Layer (Optional) Insulation Fasteners (Table 3) Fastener Density/ft²

ISO 95+ GL Tapered, ISO 95+ GL, RESISTA, Tapered RESISTA, GenFlex ISO Insulation, Tapered GenFlex ISO Insulation, Coated Glass Facer, Coated Glass Facer Tapered Minimum 1" thick N/A N/A



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ISOGARD HD, GenFlex HD ISO

Minimum ½" thick N/A N/A

Note: Top Insulation layer shall be adhered to the previous insulation layer with I.S.O. Twin Pack Insulation Adhesive applied in  $\frac{1}{2}$  to  $\frac{3}{4}$  " wide ribbons spaced 12" o.c. or with I.S.O. Spray R, I.S.O. Fix II or I.S.O. Stick applied in  $\frac{3}{4}$  to 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** -82.5 psf (See General Limitation #9)



NOA No.: 15-0209.02 Expiration Date: 06/13/24 Approval Date: 06/13/19 Page 42 of 96 **Membrane Type:** Single Ply, Thermoplastic, TPO

Deck Type 3I: Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank.

One or more layers of insulation adhered with approved adhesive; membrane System Type A(32):

fully adhered.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Insulation **Insulation Fasteners Fastener** (Table 3) Density/ft<sup>2</sup>

ISOGARD HD, GenFlex HD ISO

Minimum 1/2" thick N/A N/A

Note: All insulation layers shall be adhered with I.S.O. Stick, applied in continuous 3/4" to 1" wide ribbons spaced 4" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 3"

wide side laps.

**Maximum Design** 

**Pressure:** -300 psf (See General Limitation #9)



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**Membrane Type:** Single Ply, Thermoplastic, TPO

**Deck Type 3I:** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank.

**System Type A(33):** One or more layers of insulation adhered with approved adhesive; membrane

fully adhered.

All General and System Limitations apply.

Base Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft<sup>2</sup>

ISO 95+ GL, GenFlex ISO Insulation

Minimum: 1.5" thick N/A N/A

Top Insulation Layer Insulation Fasteners Fastener

(Table 3) Density/ft<sup>2</sup>

**DensDeck Prime** 

Minimum: ¼" thick N/A N/A

Note: Optional – Concrete deck shall be primed with ASTM D 41 asphalt primer at a rate of <sup>3</sup>/<sub>4</sub> to 1 gal/sq. and allowed to dry prior to application of insulation. Insulation shall be adhered to the deck in full mopping of approved asphalt within the EVT range and at a rate of 20-25 lbs/sq. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** -247.5 psf; (See General Limitation #9)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank.

**System Type A(34):** Insulation adhered with approved adhesive; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft<sup>2</sup>

ISOGARD HD, GenFlex HD ISO

Minimum: 1/2" thick N/A N/A

Note: Base insulation shall be adhered using I.S.O. Fix II, I.S.O. Stick, I.S.O. Twin Pack Insulation Adhesive or ISO Spray R ribbon, applied in 3/4" to 1" wide ribbons spaced 12" on center. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** -445 psf. (See General Limitation #9)



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Deck Type 3I: Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank

Base layer of insulation mechanically fastened, optional top layer fully adhered System Type B(1):

with approved adhesive.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Base Insulation Layer	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>

ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

Minimum 1.5" thick 1 or 2 with 3 1:2 ft<sup>2</sup>

**Top Insulation Layer (Optional) Insulation Fasteners Fastener** Density/ft<sup>2</sup> (Table 3)

ISO 95+ GL, GenFlex ISO Insulation

Minimum 1.5" thick N/A N/A

Tapered ISO 95+ GL, Tapered GenFlex ISO Insulation

Minimum ½" thick with a ¼" per ft. taper N/A N/A

Note: Base layer shall be mechanically attached with fasteners and density described. All other layers of insulation shall be adhered to base insulations with I.S.O. Twin Pack Insulation Adhesive applied in ½" to ¾" wide ribbons spaced 12 in. o.c. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" **Membrane:** 

wide side laps.

**Maximum Design** 

-45 psf. (See General Limitation #7) **Pressure:** 



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank

**System Type B(2):** Base layer of insulation mechanically fastened, optional top layer adhered with

approved adhesive.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)

Insulation Fasteners
(Table 3)

Fastener
Density/ft²

ISO 95+ GL, GenFlex ISO Insulation

Minimum 1" thick N/A N/A

Tapered ISO 95+ GL, Tapered GenFlex ISO Insulation

Minimum ½" thick with a ¼" per ft. taper N/A N/A

Middle Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft²

ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

Minimum 2-1/4" thick 1 or 2 with 3 1:4 ft<sup>2</sup>

Note: Optional Base layer shall be loose laid. Middle layer shall be simultaneously fastened with fasteners and density described. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer (Optional)

Insulation Fasteners
(Table 3)

Fastener

Density/ft²

ISO 95+ GL, GenFlex ISO Insulation

Minimum 1.5" thick N/A N/A

Note: Optional top layer shall be adhered to top insulation with I.S.O. Twin Pack Insulation Adhesive in continuous ½" to ¾" wide beads spaced 12" o.c. or, I.S.O. Fix II or I.S.O. Stick applied in continuous ¾" to 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** -45 psf. (See General Limitation #9)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank

**System Type B(3):** Base layer of insulation mechanically fastened, optional top layer adhered with

approved adhesive.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Base Insulation Layer (Optional) Insulation Fasteners Fastener Density/ft<sup>2</sup>

(Table 3)

ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

Minimum 1" thick N/A N/A

Middle Insulation Layer Insulation Fasteners Fastener Density/ft<sup>2</sup>

(Table 3)

ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

Minimum  $1\frac{1}{2}$ " thick 1 or 2 with 3 1:2 ft<sup>2</sup>

Note: Optional Base layer shall be loose laid. Middle layer shall be simultaneously fastened with fasteners and density described. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer Insulation Fasteners Fastener Density/ft<sup>2</sup>

(Table 3)

ISOGARD HD, GenFlex HD ISO

Minimum ½" thick N/A N/A

Note: Top layer shall be adhered to top insulation with I.S.O. Twin Pack Insulation Adhesive in continuous ½" to ¾" wide beads spaced 12" o.c. or, I.S.O. Fix II or I.S.O. Stick applied in continuous ¾" to 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** -45 psf. (See General Limitation #9)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank

**System Type B(4):** Base layer of insulation mechanically fastened, optional top layer adhered with

approved adhesive.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Minimum 1.5" thick

Base Insulation Layer	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>
ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Co	ated Glass Facer	

Note: Base layer shall be mechanically attached with fasteners and density described. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

1 or 2 with 3

Middle Insulation Layer	<b>Insulation Fasteners</b>	Fastener
·	(Table 3)	Density/ft <sup>2</sup>
ISO 95+ GL, GenFlex ISO Insulation		-
Minimum 1" thick	N/A	N/A
Additional Middle Insulation Layer (Optional)	Insulation Fasteners	Fastener
ISO 95+ GL, GenFlex ISO Insulation	(Table 3)	Density/ft <sup>2</sup>
•		
Minimum 1" thick	N/A	N/A
Tapered ISO 95+ GL, Tapered GenFlex ISO Insul	ation	
Minimum ½" thick with a ¼" per ft. taper	N/A	N/A

Note: Middle insulation layers shall be adhered to base insulations with I.S.O. Twin Pack Insulation Adhesive in continuous ½" to ¾" wide beads spaced 12" o.c. I.S.O. Fix II or I.S.O. Stick applied in continuous ¾" to 1" wide ribbons spaced 12" o.c. See Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer	Insulation Fasteners	Fastener	
	(Table 3)	Density/ft <sup>2</sup>	
DensDeck Prime, SECUROCK Gypsum Fiber Roof Board			
Minimum ¼" thick	N/A	N/A	



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1:2 ft<sup>2</sup>

Note: Top layer of insulation shall be adhered to previous layer with I.S.O. Twin Pack Insulation Adhesive in continuous ½" to ¾" wide beads spaced 12" o.c. or I.S.O. Fix II or I.S.O. Stick applied in continuous ¾" to 1" wide ribbons spaced 12" o.c. See Roofing Application Standard RAS 117 for insulation attachment.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

-45 psf. (See General Limitation #9)

**Pressure:** 



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank

**System Type B(5):** Base layer of insulation mechanically fastened, optional top layer adhered with

approved adhesive.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>
ISO 05+ CI DESISTA ConFlow ISO Inculation	n Coated Class Facer	

ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

Minimum 1.5" thick 1 or 2 with 3 1:2 ft<sup>2</sup>

Note: Base layer shall be mechanically attached with fasteners and density described. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Middle Insulation Layer	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>
ISO 95+ GL, GenFlex ISO Insulation		
Minimum 1" thick	N/A	N/A
Additional Middle Insulation Layer (Optional)	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>
ISO 95+ GL, GenFlex ISO Insulation		
Minimum 1" thick	N/A	N/A
Tapered ISO 95+ GL, Tapered GenFlex ISO Insula	tion	
Minimum ½" thick with a ¼" per ft. taper	N/A	N/A

Note: Middle insulation layers shall be adhered to base insulations with I.S.O. Twin Pack Insulation Adhesive in continuous ½" to ¾" wide beads spaced 12" o.c. or I.S.O. Fix II or I.S.O. Stick applied in continuous ¾" to 1" wide ribbons spaced 12" o.c. See Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>
DensDeck Prime, SECUROCK Gypsum Fiber Roof Board, ISOGARD HD, GenFlex HD ISO		
Minimum ½" thick	N/A	N/A



NOA No.: 15-0209.02 Expiration Date: 06/13/24 Approval Date: 06/13/19 Page 51 of 96 Note: Top layer of insulation shall be adhered to previous layer with I.S.O. Twin Pack Insulation Adhesive in continuous ½" to ¾" wide beads spaced 12" o.c. or I.S.O. Fix II or I.S.O. Stick applied in continuous ¾" to 1" wide ribbons spaced 12" o.c. See Roofing Application Standard RAS 117 for insulation attachment.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** -45 psf. (See General Limitation #9)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank

System Type B(6): Base layer of insulation mechanically fastened, optional top layer adhered with

approved adhesive.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Base Insulation Layer Insulation Fasteners Fastener (Table 3) Pensity/ft<sup>2</sup>

ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

Minimum 1.5" thick 1 or 2 with 3 1:1.6  $ft^2$ 

Note: Base layer shall be mechanically attached with fasteners and density described. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Top Insulation Layer Insulation Fasteners (Table 3) Fastener Density/ft<sup>2</sup>

DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board, ISOGARD HD, GenFlex HD ISO Minimum ½" thick N/A N/A

ISOGARD HD Composite, GenFlex HD Composite ISO

Minimum 1½" thick N/A N/A

Note: Top layer of insulation shall be adhered to base insulations with I.S.O. Twin Pack Insulation Adhesive in continuous ½" to ¾" wide beads spaced 6" o.c. or I.S.O. Fix II or I.S.O. Stick (not for ISOGARD HD (GenFlex HD ISO) or ISOGARD HD Composite (GenFlex HD Composite ISO)) applied in continuous ¾" to 1" wide ribbons spaced 6 o.c. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** -60 psf. (See General Limitation #7)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank

**System Type B(7):** Base layer of insulation mechanically fastened, optional top layer adhered with

approved adhesive.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Base Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft<sup>2</sup>

ISO 95+ GL,, GenFlex ISO Insulation,

Minimum 1.5" thick 1 or 2 with 3 1:1.78 ft<sup>2</sup>

Note: Base layer shall be fastened with fasteners and density described. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft<sup>2</sup>

ISOGARD HD Composite, GenFlex HD Composite ISO

Minimum 1.5" thick N/A N/A

Note: Top layer shall be adhered to base insulation layer with I.S.O. Stick, I.S.O. Fix II or I.S.O. Spray R applied in continuous 3/4" to 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** -60 psf. (See General Limitation #7)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank

**System Type B(8):** Base layer of insulation mechanically fastened, optional top layer adhered with

approved adhesive.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

 $\begin{array}{ccc} Base\ Insulation\ Layer & Insulation\ Fasteners \\ & (Table\ 3) & Density/ft^2 \end{array}$ 

ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

Minimum 2" thick 1 or 2 with 3 1:1.78 ft<sup>2</sup>

Note: Base layer shall be mechanically attached with fasteners and density described. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Middle Insulation Layer Insulation Fasteners (Table 3) Density/ft<sup>2</sup>

ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

Minimum ½" thick N/A N/A

Note: Middle Insulation shall be adhered with I.S.O. Twin Pack Insulation Adhesive in continuous ½" to ¾" wide ribbons spaced 6" o.c. or I.S.O. Spray R applied in continuous ¾" to 1" wide ribbons spaced 6" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Pensity/ft²

ISOGARD HD, GenFlex HD ISO

Minimum ½" thick N/A N/A

Note: Top layer of insulation shall be adhered to base insulations with I.S.O. Twin Pack Insulation Adhesive in continuous ½" to ¾" wide ribbons spaced 6" o.c. or I.S.O. Spray R, I.S.O. Fix II or I.S.O. Stick applied in continuous ¾" to 1" wide ribbons spaced 6" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** -60 psf. (See General Limitation #7):



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Deck Type 3I: Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank

Base layer of insulation mechanically fastened, optional top layer adhered with **System Type B(9):** 

approved adhesive.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>
ISO 95+ GL, RESISTA, GenFlex ISO Insula	ation, Coated Glass Facer	
Minimum 2" thick	1 or 2 with 3	1:1.78 ft <sup>2</sup>

Note: Base layer shall be mechanically attached with fasteners and density described. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Top Insulation Layer	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>
ISOGARD HD, GenFlex HD ISO		
Minimum ½" thick	N/A	N/A

Note: Top insulation layer shall be adhered to base insulations with I.S.O. Twin Pack Insulation Adhesive in continuous 1/2" to 3/4" wide ribbons spaced 6" o.c. or I.S.O. Spray R, I.S.O. Fix II or I.S.O. Stick applied in continuous 3/4" to 1" wide ribbons spaced 6" o.c. See Roofing Application Standard RAS 117 for insulation attachment.

Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" **Membrane:** 

wide side laps.

**Maximum Design** 

**Pressure:** -67.5 psf. (See General Limitation #7)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank

**System Type B(10):** Base layer of insulation mechanically fastened, optional top layer adhered with

approved adhesive.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>
ISO 05+ CI ConFlav ISO Inculation		

ISO 95+ GL, GenFlex ISO Insulation

Minimum 2" thick 1 or 2 with 3  $1:1.78 \text{ ft}^2$ 

Note: Base layer shall be fastened with fasteners and density described. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>
SECUROCK Gypsum Fiber Roof Board		
Minimum ¼" thick	N/A	N/A

Note: Top layer shall be adhered to top insulation with I.S.O. Stick applied in continuous 3/4" to 1" wide ribbons spaced 6" o.c. or I.S.O. Spray R applied in continuous 3/4" to 1" wide ribbons spaced 6" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** -67.5 psf. (See General Limitation #7)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank

System Type B(11): Base layer of insulation mechanically fastened, optional top layer adhered with

approved adhesive.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Base Insulation Layer Insulation Fasteners (Table 3) Fastener Density/ft<sup>2</sup>

ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

Minimum 2" thick 1 or 2 with 3 1:1.6 ft<sup>2</sup>

Note: Base layer shall be mechanically attached with fasteners and density described. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft<sup>2</sup>

ISO 95+ GL, GenFlex ISO Insulation

Minimum 1" thick N/A N/A

Note: Top layer of insulation shall be adhered to base insulations with I.S.O. Twin Pack Insulation Adhesive in continuous ½" to ¾" wide beads spaced 6" o.c., I.S.O. Fix II or I.S.O. Stick applied in continuous ¾" to 1" wide ribbons spaced 6" o.c. See Roofing Application Standard RAS 117 for insulation attachment.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** - 75 psf. (See General Limitation #7)



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**Deck Type 7I:** Recover, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank.

System Type B(12): Base layer of insulation mechanically fastened, optional top layer adhered with

approved adhesive.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>

ISO 95+ GL, GenFlex ISO Insulation

Minimum 1" thick N/A N/A

ISO 95+ GL Tapered, GenFlex ISO Insulation Tapered

Minimum ½" thick with a ¼" per ft. taper N/A N/A

Middle Insulation Layer	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>

ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

Minimum 2" thick 1 or 2 with 3 1:1.6 ft<sup>2</sup>

Note: Middle layer shall be mechanically attached with fasteners and density described. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Top Insulation Layer	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>
ISOGARD HD, GenFlex HD ISO		
Minimum 1/2" thick	N/A	N/A

Note: Top layer of insulation shall be adhered to middle insulation layer with I.S.O. Twin Pack Insulation Adhesive in continuous ½"to ¾" wide ribbons spaced 6" o.c. or I.S.O. Fix II or I.S.O. Stick applied in continuous ¾" to 1" wide ribbons spaced 6" o.c. See Roofing Application Standard RAS 117 for insulation attachment.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** -82.5 psf. (See General Limitation #7)



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Deck Type 3I: Concrete, Insulated

Min. 2500 psi structural concrete or concrete plank **Deck Description:** 

**System Type B(13):** Base layer of insulation mechanically fastened, top layer adhered with approved

adhesive.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
RESISTA, Coated Glass Facer	(130.10 0)	2 0118103710
Minimum 1.5" thick	1 or 2 with 3	1:1 ft <sup>2</sup>
<b>Top Insulation Layer</b>	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
RESISTA, Coated Glass Facer	,	·
Minimum 1.5" thick	N/A	N/A

Note: Base layer shall be mechanically attached with fasteners and density described. Top layer of insulation shall be adhered to base insulations with I.S.O. Twin Pack Insulation Adhesive in continuous ½" to ¾" wide beads spaced 12" o.c. or I.S.O. Stick, I.S.O. Fix II applied in continuous 3/4" to 1" wide ribbons spaced 12" o.c. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** -120 psf. (See General Limitation #7)



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Deck Type 3I: Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank

Base layer of insulation mechanically fastened, optional top layer adhered with System Type B(14):

approved adhesive.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>
ISO 95+ GL, RESISTA, GenFlex ISO Insulation	ı, Coated Glass Facer	

Minimum 2" thick 1 or 2 with 3 1:1 ft<sup>2</sup>

Note: Base layer shall be fastened with fasteners and density described. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>

ISO 95+ GL, GenFlex ISO Insulation

Minimum 1" thick N/A N/A

Note: Top layer shall be adhered to top insulation with I.S.O. Twin Pack Insulation Adhesive in continuous 1/2" to 3/4" wide beads spaced 4" o.c. or, I.S.O. Fix II or I.S.O. Stick applied in continuous 3/4" to 1" wide ribbons spaced 4" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" **Membrane:** 

wide side laps.

**Maximum Design** 

-127.5 psf. (See General Limitation #7) **Pressure:** 



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Deck Type 3I: Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank

Base layer of insulation mechanically fastened, optional top layer adhered with System Type B(15):

approved adhesive.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

**Base Insulation Layer Insulation Fasteners Fastener** (Table 3) Density/ft<sup>2</sup>

ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

Minimum 2" thick 1:1 ft<sup>2</sup> 1 or 2 with 3

**Top Insulation Layer Insulation Fasteners Fastener** 

(Table 3)

Density/ft<sup>2</sup>

DensDeck Prime, ISOGARD HD, GenFlex HD ISO

Minimum ½" thick N/A N/A

ISOGARD HD Composite, GenFlex HD Composite ISO

Minimum 11/2" thick N/A N/A

Note: Base layer shall be mechanically attached with fasteners and density described. Top layer of insulation shall be adhered to base insulations with I.S.O. Twin Pack Insulation Adhesive in continuous ½" to ¾" wide beads spaced 4" o.c., I.S.O. Fix II or I.S.O. Stick (not for ISOGARD HD (GenFlex HD ISO) (or ISOGARD HD Composite (GenFlex HD Composite ISO)) applied in continuous 3/4" to 1" wide ribbons spaced 4" o.c. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** -127.5 psf. (See General Limitation #7)



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Deck Type 3I: Concrete, Insulated

Min. 2500 psi structural concrete or concrete plank **Deck Description:** 

Base layer of insulation mechanically fastened, optional top layer adhered with System Type B(16):

approved adhesive

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

**Base Insulation Layer (Optional)** Fastener Density/ft<sup>2</sup> **Insulation Fasteners** 

(Table 3)

ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

Minimum 1" thick N/A N/A

**Middle Insulation Layer Insulation Fasteners** Fastener Density/ft<sup>2</sup>

(Table 3)

ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

1:1 ft<sup>2</sup> Minimum 2" thick 1 or 2 with 3

Note: Base layer shall be loose laid. Middle layer shall be simultaneously fastened with fasteners and density described. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Top Insulation Layer Insulation Fasteners** Fastener Density/ft<sup>2</sup> (Table 3)

ISOGARD HD, GenFlex HD ISO

Minimum 1/2" thick N/A N/A

Note: Top layer shall be adhered to top insulation with I.S.O. Twin Pack Insulation Adhesive in continuous ½" to ¾" wide ribbons spaced 4" o.c. or, I.S.O. Fix II or I.S.O. Stick applied in continuous 3/4" to 1" wide ribbons spaced 4" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** -135 psf. (See General Limitation #7)



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Deck Type 3I: Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank

System Type B(17): Base layer of insulation mechanically fastened, optional top layer adhered with

approved adhesive

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

**Base Insulation Layer (Optional)** Fastener Density/ft<sup>2</sup> **Insulation Fasteners** 

(Table 3)

ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

Minimum 1" thick N/A N/A

Middle Insulation Layer **Insulation Fasteners** Fastener Density/ft<sup>2</sup>

(Table 3)

ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

Minimum 2" thick 1 or 2 with 3 1:1 ft<sup>2</sup>

Note: Base layer shall be loose laid. Middle layer shall be simultaneously fastened with fasteners and density described. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Fastener Density/ft<sup>2</sup> **Top Insulation Layer Insulation Fasteners** 

(Table 3)

ISOGARD HD, GenFlex HD ISO

Minimum 1/2" thick N/A N/A

Note: Top layer shall be adhered to top insulation with I.S.O. Twin Pack Insulation Adhesive in continuous 1/2" to 3/4" wide ribbons spaced 4" o.c. or, I.S.O. Fix II or I.S.O. Stick applied in continuous 3/4" to 1" wide ribbons spaced 4" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Min. 45 mil. UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide

side laps.

**Maximum Design** 

**Pressure:** -135 psf. (See General Limitation #7)



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Deck Type 3I: Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank.

**System Type C(1):** All layers of insulation simultaneously attached; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>
ISO 95+ GL, GenFlex ISO Insulation		

Minimum 1" thick N/A N/A

ISO 95+ GL Tapered, GenFlex ISO Insulation Tapered Minimum ½" thick with a ¼" per ft. taper N/A

**Middle Insulation Layer Insulation Fasteners Fastener** Density/ft<sup>2</sup>

(Table 3) ISO 95+ GL, GenFlex ISO Insulation

Minimum 1-1/2" thick N/A N/A

**Top Insulation Layer Insulation Fasteners Fastener** (Table 3) Density/ft<sup>2</sup>

ISOGARD HD, GenFlex HD ISO

Minimum ½" thick 1:2.1 ft<sup>2</sup> 1 or 2 with 3

ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

1:2.1 ft<sup>2</sup> Minimum 1" thick 1 or 2 with 3

DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board

Minimum 1/4" thick 1 or 2 with 3 1:2.1 ft<sup>2</sup>

ISOGARD HD Composite, GenFlex HD Composite ISO

Minimum 1-1/2" thick 1:2.1 ft<sup>2</sup> 1 or 2 with 3

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.



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**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** -45 psf. (See General Limitation #9)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank.

System Type C(2): All layers of insulation simultaneously attached; membrane fully adhered. All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer Insulation Fasteners (Table 3) Fastener Density/ft²

ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

Minimum 1" thick N/A N/A

Top Insulation Layer Insulation Fasteners (Table 3) Fastener Density/ft<sup>2</sup>

**SECUROCK Gypsum-Fiber Roof Board** 

Minimum 1/4" thick 1 or 2 with 3 1:1.78 ft<sup>2</sup>

**RESISTA, Coated Glass Facer** 

Minimum 1" thick 1 or 2 with 3 1:1.78 ft<sup>2</sup>

ISO 95+ GL, ISOGARD HD Composite, GenFlex ISO Insulation, GenFlex HD Composite ISO Minimum 1.5" thick

1 or 2 with 3

1:1.78 ft<sup>2</sup>

**DensDeck Prime** 

Minimum ½" thick 1 or 2 with 3 1:1.78 ft<sup>2</sup>

Note: All layers shall be simultaneously fastened. See top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** -45 psf. (See General Limitation #7)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank.

**System Type C(3):** All layers of insulation simultaneously attached; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer (Optional)	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>

ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

Minimum 1.5" thick N/A N/A

Top Insulation Layer	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>

ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

Minimum 2" thick 1 or 2 with 3 1:2.67 ft<sup>2</sup>

DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board

Minimum 1/2" thick 1 or 2 with 3 1:2.67 ft<sup>2</sup>

ISOGARD HD Composite, GenFlex HD Composite ISO

Minimum 1-1/2" thick 1 or 2 with 3 1:2.67 ft<sup>2</sup>

Note: All layers shall be simultaneously fastened. See top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** -45 psf. (See General Limitation #7)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank.

**System Type C(4):** Membrane bonded over mechanically fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
ISO 95+ GL, RESISTA, GenFlex ISO Insulation	on, Coated Glass Facer	•
Minimum 1.5" thick	N/A	N/A
Middle Insulation Layer	Insulation Fasteners	Fastener
·	(Table 3)	Density/ft <sup>2</sup>
ISO 95+ GL, RESISTA, GenFlex ISO Insulation	` ,	
Minimum 1/2" thick	N/A	N/A
<b>Top Insulation Layer</b>	Insulation Fasteners	Fastener
r	(Table 3)	Density/ft <sup>2</sup>
ISO 95+ GL, RESISTA, GenFlex ISO Insulation	· · · · · · · · · · · · · · · · · · ·	2 0118103710
Minimum 1" thick	1 or 2 with 3	1:5.3 ft <sup>2</sup>
ISOGARD HD, GenFlex HD ISO		
Minimum ½" thick	1 or 2 with 3	1:5.3 ft <sup>2</sup>
DensDeck Prime, SECUROCK Gypsum Fiber	Roof Board	
Minimum ¼" thick	1 or 2 with 3	1:5.3 ft <sup>2</sup>
ISOGARD HD Composite, GenFlex HD Comp	oosite ISO	
Minimum 1-1/2" thick	1 or 2 with 3	1:5.3 ft <sup>2</sup>
Plywood		
Minimum 19/32" thick	1 or 2 with 3	1:5.3 ft <sup>2</sup>

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.



NOA No.: 15-0209.02 Expiration Date: 06/13/24 Approval Date: 06/13/19 Page 69 of 96 **Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** -45 psf. (See General Limitation #9)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank.

**System Type C(5):** Membrane fully adhered over mechanically fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

<b>Base Insulation Layer</b>	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coat	ted Glass Facer	
Minimum 1.5" thick	N/A	N/A
Top Insulation Layer	<b>Insulation Fasteners</b>	Fastener
•	(Table 3)	Density/ft <sup>2</sup>
ISOGARD HD, GenFlex HD ISO		·
Minimum ½" thick	1 or 2 with 3	1:2.7ft <sup>2</sup>
ISO 95 + GL, RESISTA, GenFlex ISO Insulation, Coa	ated Glass Facer	
Minimum 1" thick	1 or 2 with 3	1:2.7 ft <sup>2</sup>
DensDeck Prime, SECUROCK Gypsum-Fiber Roof B	oard	
Minimum <sup>1</sup> / <sub>4</sub> " thick	1 or 2 with 3	1:2.7 ft <sup>2</sup>
ISOGARD HD Composite, GenFlex HD ISO Composi	te	
Minimum 1.5" thick	1 or 2 with 3	1:2.7 ft <sup>2</sup>

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

**Membrane:** Min. 45 mil. UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** -45 psf. (See General Limitation #9)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank.

**System Type C(6):** Membrane fully adhered over mechanically fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>

ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

Minimum 1.5" thick N/A N/A

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Pensity/ft<sup>2</sup>

ISOGARD HD, GenFlex HD ISO

Minimum 1" thick 1 or 2 with 3  $1: 1.78 \text{ ft}^2$ 

ISO 95 + GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

Minimum 1" thick 1 or 2 with 3  $1: 1.78 \text{ ft}^2$ 

DensDeck Prime, SECUROCK Gypsum-Fiber Boards

Minimum 1/4" thick 1 or 2 with 3 1: 1.78 ft<sup>2</sup>

ISOGARD HD Composite, GenFlex HD Composite ISO

Minimum 1-1/2" thick 1 or 2 with 3 1:1.78 ft<sup>2</sup>

Note: All layers shall be simultaneously fastened; see top layer for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** -45 psf. (See General Limitation #7)



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**Deck Type 3I** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank.

**System Type C(7):** Base layer of insulation mechanically fastened, optional top layer adhered with

approved adhesive

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Base Insulation Layer Insulation Fasteners Fastener Density/ft<sup>2</sup>

(Table 3)

ISO 95+ GL, GenFlex ISO Insulation

Minimum 1-1/2" thick N/A N/A

Middle Insulation Layer (Optional) Insulation Fasteners Fastener Density/ft<sup>2</sup>

(Table 3)

ISO 95+ GL Tapered, GenFlex ISO Insulation Tapered

Minimum 1/2" thick N/A N/A

Note: Base layer shall be loose laid. Middle layer shall be preliminary fastened. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for fastening details.

Top Insulation Layer Insulation Fasteners Fastener Density/ft<sup>2</sup>

(Table 3)

DensDeck Prime, SECUROCK Gypsum Fiber Roof Board

Minimum 1/4" thick 1 or 2 with 3 1:2 ft<sup>2</sup>

ISOGARD HD Composite, ISO 95+ GL, GenFlex HD Composite ISO, GenFlex ISO Insulation

Minimum 1-1/2" thick 1 or 2 with 3 1:2 ft<sup>2</sup>

**RESISTA, Coated Glass Facer** 

Minimum 1" thick 1 or 2 with 3 1:2  $ft^2$ 

**Plywood** 

Minimum 19/32" thick 1 or 2 with 3 1:2 ft<sup>2</sup>

Note: All layers shall be simultaneously fastened; see top layer for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.



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Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" **Membrane:** 

wide side laps.

**Maximum Design** 

-45 psf. (See General Limitation #9) **Pressure:** 



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank.

**System Type C(8):** All layers of insulation simultaneously attached; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>

ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

Minimum ½" thick N/A N/A

Top Insulation Layer	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>

ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

Minimum 1<sup>1</sup>/<sub>4</sub>" thick 1 or 2 with 3 1:2.7 ft<sup>2</sup>

DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board

Minimum 1/2" thick 1 or 2 with 3 1:2.7 ft<sup>2</sup>

ISOGARD HD Composite, GenFlex HD Composite ISO

Minimum 1-1/2" thick 1 or 2 with 3 1:2.7 ft<sup>2</sup>

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** -45 psf. (See General Limitation #9)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank

**System Type C(9):** All layers of insulation simultaneously attached; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	Insulation Fasteners	<b>Fastener</b>
	(Table 3)	Density/ft <sup>2</sup>

ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

Minimum ½" thick N/A N/A

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft<sup>2</sup>

**RESISTA**, Coated Glass Facer

Minimum 1" thick 1 or 2 with 3  $1:1.6 \text{ ft}^2$ 

ISO 95 + GL, ISOGARD HD Composite, GenFlex ISO Insulation, GenFlex HD Composite ISO Minimum 1-1/2" thick 1 or 2 with 3 1:1.6 ft<sup>2</sup>

SECUROCK Gypsum Fiber Roof Board, DensDeck Prime

Minimum  $\frac{1}{2}$ " thick 1 or 2 with 3 1:1.6 ft<sup>2</sup>

Note: All layers shall be simultaneously fastened. See top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** -52.5 psf. (See General Limitation #7)

**Pressure:** 



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank.

System Type C(10): Membrane fully adhered over mechanically fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

<b>Base Insulation Layer (Optional)</b>	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>

ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

Minimum ½"thick N/A N/A

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Pensity/ft²

DensDeck Prime, SECUROCK Gypsum Fiber Roof Board

Minimum ½" thick 1 or 2 with 3 1:.1.78 ft<sup>2</sup>

**RESISTA, Coated Glass Facer** 

Minimum 2" thick 1 or 2 with 3  $1:1.78 \text{ ft}^2$ 

ISOGARD HD Composite, GenFlex HD Composite ISO

Minimum 1.5" thick 1 or 2 with 3 1:.1.78 ft<sup>2</sup>

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** -52.5 psf. (See General Limitation #7)



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**Membrane Type:** Single Ply, Thermoplastic, TPO

**Deck Type 3I:** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank

**System Type C(11):** All layers of insulation simultaneously attached; membrane fully adhered.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer (Optional) Insulation Fasteners (Table 3) Fastener Density/ft²

ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

Minimum ½"thick N/A N/A

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Fensity/ft²

ISO 95+ GL, ISOGARD HD Composite, RESISTA, GenFlex ISO Insulation, Coated Glass Facer,

**GenFlex HD Composite ISO** 

Minimum 1-1/2" thick 1 or 2 with 3 1:  $1.78 \text{ ft}^2$ 

DensDeck Prime, SECUROCK Gypsum Fiber Roof Board

Minimum  $\frac{1}{2}$ " thick 1 or 2 with 3 1: 1.78 ft<sup>2</sup>

Note: All layers shall be simultaneously fastened. See top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** -60 psf. (See General Limitation #7)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank.

System Type C(12): Membrane fully adhered over mechanically fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

<b>Base Insulation Layer (Optional)</b>	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>

ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

Minimum ½"thick N/A N/A

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Pensity/ft²

**SECUROCK Gypsum-Fiber Roof Board** 

Minimum 1/2" thick 1 or 2 with 3 1: 2.13 ft<sup>2</sup>

ISOGARD HD Composite, GenFlex HD Composite ISO

Minimum 1-1/2" thick 1 or 2 with 3 1: 2.13 ft<sup>2</sup>

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** -60 psf. (See General Limitation #7)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank.

System Type C(13): Membrane fully adhered over mechanically fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Base Insulation Layer (Optional) Insulation Fasteners Fastener (Table 3) Density/ft²

ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

Minimum ½" thick N/A N/A

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft<sup>2</sup>

ISOGARD HD Composite, GenFlex HD Composite ISO

Minimum 1" thick 1 or 2 with 3 1:  $1.33 \text{ ft}^2$ 

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** -60 psf. (See General Limitation #7)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank.

System Type C(14): Membrane bonded over mechanically fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

one of more tayers of any of the following institutions.		
Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coa	ated Glass Facer	•
Minimum 1.5" thick	N/A	N/A
<b>Top Insulation Layer</b>	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
ISOGARD HD, GenFlex HD ISO		
Minimum ½" thick	1 or 2 with 3	1:4 ft <sup>2</sup>
ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Co.	ated Glass Facer	
Minimum 1" thick	1 or 2 with 3	1:4 ft <sup>2</sup>
SECUROCK Gypsum Fiber Roof Board		
Minimum 1/2" thick	1 or 2 with 3	1:4 ft <sup>2</sup>
DensDeck Prime		
Minimum 1/4" thick	1 or 2 with 3	1:4 ft <sup>2</sup>
ISOGARD HD Composite, GenFlex HD Composite I	SO	
Minimum 1-1/2" thick	1 or 2 with 3	1:4 ft <sup>2</sup>
Plywood		

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

1 or 2 with 3

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** -60 psf. (See General Limitation #7)



Minimum 19/32" thick

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1:4 ft<sup>2</sup>

**Deck Type 3I:** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank.

**System Type C(15):** Membrane fully adhered over mechanically fastened insulation

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Base Insulation Layer Insulation Fasteners Fastener (Table 3) The Density/ft<sup>2</sup>

ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

Minimum 1" thick N/A N/A

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft<sup>2</sup>

**SECUROCK Gypsum-Fiber Roof Board** 

Minimum 1/2" thick 1 or 2 with 3 1: 4.0 ft<sup>2</sup>

ISOGARD HD Composite, GenFlex HD Composite ISO

Minimum 1-1/2" thick 1 or 2 with 3 1:  $4.0 \text{ ft}^2$ 

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** -62.5 psf. (See General Limitation #9)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank.

**System Type C(16):** All layers of insulation simultaneously attached; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>

ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

Minimum 1/2" thick N/A N/A

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Pensity/ft<sup>2</sup>

**SECUROCK Gypsum-Fiber Roof Board** 

Minimum ½" thick 1 or 2 with 3 1:1.6 ft<sup>2</sup>

ISOGARD HD Composite, GenFlex HD Composite ISO

Minimum 1-1/2" thick 1 or 2 with 3 1:1.6  $ft^2$ 

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** -67.5 psf. (See General Limitation #7)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank.

System Type C(17): Membrane bonded over mechanically fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>
ISO 05+ CI DESISTA ConFlow ISO Inculation	n Coated Class Facer	

ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

Minimum 1.5" thick N/A N/A

Top Insulation Layer	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>

Plywood

Minimum 19/32" thick 1 or 2 with 4 1:2.7 ft<sup>2</sup>

ISOGARD HD, GenFlex HD ISO

Minimum  $\frac{1}{2}$ " thick 1 or 2 with 4 1:2.7 ft<sup>2</sup>

DensDeck Prime, SECUROCK Gypsum Fiber Roof Board

Minimum <sup>1</sup>/<sub>4</sub>" thick 1 or 2 with 4 1:2.7 ft<sup>2</sup>

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 6"

wide side laps.

**Maximum Design** 

**Pressure:** -75 psf. (See General Limitation #7)



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Single Ply, TPO, Reinforced **Membrane Type:** 

Deck Type 3I: Concrete, Insulated

Min. 2500 psi structural concrete or concrete plank. **Deck Description:** 

System Type C(18): All layers of insulation simultaneously attached; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

**Base Insulation Layer (Optional) Insulation Fasteners Fastener** (Table 3) Density/ft<sup>2</sup>

ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

Minimum ½" thick N/A N/A

**Top Insulation Layer Insulation Fasteners Fastener** 

(Table 3) Density/ft<sup>2</sup>

RESISTA, ISOGARD HD Composite, Coated Glass Facer, GenFlex HD Composite ISO Minimum 1-1/2" thick 1 or 2 with 3 1:1.6 ft<sup>2</sup>

ISO 95 + GL, GenFlex ISO Insulation

Minimum 2" thick 1 or 2 with 3 1:1.6 ft<sup>2</sup>

DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board

Minimum 1/2" thick 1 or 2 with 3 1:1.6 ft<sup>2</sup>

Note: All layers shall be simultaneously fastened. See top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" **Membrane:** 

wide side laps.

**Maximum Design** 

**Pressure:** -75 psf. (See General Limitation #7)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank.

**System Type C(19):** All layers of insulation simultaneously attached; membrane bonded.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>

ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

Minimum 1/2" thick N/A N/A

Top Insulation Layer Insulation Fasteners (Table 3) Fastener Density/ft<sup>2</sup>

**SECUROCK Gypsum Fiber Roof Board** 

Minimum  $\frac{1}{2}$ " thick 1 or 2 with 3 1:1.78 ft<sup>2</sup>

ISOGARD HD Composite, GenFlex HD Composite ISO

Minimum 1-1/2" thick 1 or 2 with 3 1:1.78 ft<sup>2</sup>

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** -82.5 psf. (See General Limitation #7)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank.

System Type C(20): Membrane adhered over mechanically fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

<b>Base Insulation Layer (Optional)</b>	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>

ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

Minimum ½" thick N/A N/A

Top Insulation Layer	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>

ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

Minimum 2" thick 1 or 2 with 3  $1:1.6 \text{ ft}^2$ 

DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board

Minimum  $\frac{1}{2}$ " thick 1 or 2 with 3 1:1.6 ft<sup>2</sup>

ISOGARD HD Composite, GenFlex HD Composite ISO

Minimum 1-1/2" thick 1 or 2 with 3 1:1.6  $ft^2$ 

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** -82.5 psf. (See General Limitation #7)



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Single Ply, TPO, Reinforced **Membrane Type:** 

Deck Type 3I Concrete, Insulated

Min. 2500 psi structural concrete or concrete plank. **Deck Description:** 

System Type C(21): All layers of insulation simultaneously attached; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer (Optional)	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>
ISO 95+ GL, RESISTA, GenFlex ISO Insulation	n, Coated Glass Facer	_
Minimum ½" thick	N/A	N/A
<b>Top Insulation Layer</b>	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>
RESISTA, Coated Glass Facer		
Minimum 2" thick	1 or 2 with 3	1:1.33 ft <sup>2</sup>
SECUROCK Gypsum-Fiber Roof Board		
Minimum 1/2" thick	1 or 2 with 3	1:1.33 ft <sup>2</sup>
ISOGARD HD Composite, GenFlex HD Compo	osite ISO	
Minimum 1-1/2" thick	1 or 2 with 3	1:1.33 ft <sup>2</sup>

Note: All layers shall be simultaneously fastened. See top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" **Membrane:** 

wide side laps.

**Maximum Design** 

-105 psf. (See General Limitation #7) **Pressure:** 



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank.

**System Type C(22):** Membrane fully adhered over mechanically fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

<b>Base Insulation Layer (Optional)</b>	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>

ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

Minimum ½" thick N/A N/A

Top Insulation Layer Insulation Fasteners (Table 3) Fastener Density/ft<sup>2</sup>

RESISTA, ISO 95+ GL, GenFlex ISO Insulation, Coated Glass Facer

Minimum 2" thick 1 or 2 with 3 1:1  $ft^2$ 

SECUROCK Gypsum-Fiber Roof Board, DensDeck Prime

Minimum ½" thick 1 or 2 with 3 1:1 ft<sup>2</sup>

ISOGARD HD Composite, GenFlex HD Composite ISO

Minimum 1-1/2" thick 1 or 2 with 3 1:1  $ft^2$ 

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressures:** -150 psf. (See General Limitation #7)



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Deck Type 3I: Concrete, Insulated

Min. 2500 psi structural concrete or concrete plank. **Deck Description:** 

Membrane fully adhered over mechanically fastened insulation. System Type C(23):

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

**Base Insulation Layer (Optional) Insulation Fasteners Fastener** (Table 3) Density/ft<sup>2</sup>

ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

Minimum 1/2" thick N/A N/A

**Top Insulation Layer Insulation Fasteners Fastener** 

Density/ft<sup>2</sup> (Table 3)

ISOGARD HD Composite, GenFlex HD Composite ISO

1: 1.33 ft<sup>2</sup> Minimum 1.5" thick 1 or 2 with 3

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing **Application Standard RAS 117 for fastening details.** 

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

-112.5 psf. (See General Limitation #7) **Pressure:** 



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** Min. 2500 psi structural concrete or concrete plank.

**System Type C(24):** Membrane fully adhered over mechanically fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Base Insulation Layer (Optional) Insulation Fasteners Fastener (Table 3) Density/ft²

ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

Minimum ½" thick N/A N/A

Top Insulation Layer Insulation Fasteners Fastener

(Table 3) Density/ft<sup>2</sup>

ISOGARD HD Composite, GenFlex HD Composite ISO

Minimum 2" thick 1 or 2 with 3  $1: 1.33 \text{ ft}^2$ 

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** -120 psf. (See General Limitation #7)



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Single Ply, TPO, Reinforced **Membrane Type:** 

Deck Type 3I: Concrete, Insulated

Min. 2500 psi structural concrete or concrete plank. **Deck Description:** 

Membrane adhered over mechanically fastened insulation. System Type C(25):

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

<b>Base Insulation Layer (Optional)</b>	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>

ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

Minimum ½" thick N/A N/A

<b>Top Insulation Layer</b>	<b>Insulation Fasteners</b>	<b>Fastener</b>
	(Table 3)	Density/ft <sup>2</sup>

ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer

Minimum 2" thick 1 or 2 with 3 1:1 ft<sup>2</sup>

DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board

Minimum 1/2" thick 1:1 ft<sup>2</sup> 1 or 2 with 3

ISOGARD HD Composite, GenFlex HD Composite ISO

1:1 ft<sup>2</sup> Minimum 1-1/2" thick 1 or 2 with 3

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" **Membrane:** 

wide side laps.

**Maximum Design** 

**Pressure:** -142.5 psf. with ISO 95+ GL, RESISTA, DensDeck Prime, or ISOAGRD HD

Composite (See General Limitation #7)

-112.5 psf. with SECUROCK Gypsum Fiber Roof Board (See General

Limitation #7)



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Single Ply, TPO, Reinforced **Membrane Type:** 

Deck Type 3I: Concrete, Insulated

Min. 2500 psi structural concrete or concrete plank. **Deck Description:** 

All layers of insulation simultaneously attached; membrane fully adhered. System Type C(26):

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

(Optional) Vapor Retarder Polyethylene Sheet 4-6 mil thick Min. 2" wide laps sealed with duct tape

One or more layers of any of the following insulations.

**Base Insulation Layer Insulation Fasteners Fastener** (Table 3) Density/ft<sup>2</sup>

ISO 95+ GL, ISO 95 + GL Tapered, RESISTA, RESISTA Tapered, GenFlex ISO Insulation,

Tapered GenFlex ISO Insulation, Coated Glass Facer, Coated Glass Facer Tapered Minimum 1-1/2" thick N/A N/A

**Top Insulation Layer Insulation Fasteners Fastener** (Table 3) Density/ft<sup>2</sup>

**SECUROCK Gypsum-Fiber Roof Board** 

Minimum 1/2" thick 1:4 ft<sup>2</sup> 1 or 2 with 3

ISOGARD HD Composite, GenFlex HD Composite ISO

Minimum 1-1/2" thick 1 or 2 with 3 1: 4 ft<sup>2</sup>

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing **Application Standard RAS 117 for fastening details.** 

**Membrane:** Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** -45 psf. (See General Limitation #9)



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Deck Type 3I Steel, Insulated

Min. 2500 psi structural concrete or concrete plank. **Deck Description:** 

Membrane fully adhered over mechanically fastened insulation. System Type C(27):

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

**Base Insulation Layer (Optional) Insulation Fasteners Fastener** (Table 3) Density/ft<sup>2</sup>

ISO 95+ GL, RESISTA, DensDeck Prime, GenFlex ISO Insulation, Coated Glass Facer Minimum ½" thick N/A N/A

**Top Insulation Layer Insulation Fasteners Fastener** Density/ft<sup>2</sup> (Table 3)

ISOGARD HD Composite, GenFlex HD Composite ISO

Minimum 1 ½" thick 1 or 2 with 3 1:2.13 ft<sup>2</sup>

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing **Application Standard RAS 117 for fastening details.** 

Membrane: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** -67.5 psf. (See General Limitation #7)

**Pressure:** 



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Deck Type 3I: Steel, Insulated

Min. 2500 psi structural concrete or concrete plank **Deck Description:** 

Membrane fully adhered over mechanically fastened insulation. System Type C(28):

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

**Base Insulation Layer (Optional) Insulation Fasteners** Fastener Density/ft<sup>2</sup> (Table 3)

ISO 95+ GL, RESISTA, DensDeck Prime, GenFlex ISO Insulation, Coated Glass Facer Minimum ½" thick N/A N/A

**Top Insulation Layer Insulation Fasteners Fastener** (Table 3) Density/ft<sup>2</sup>

ISOGARD HD Composite, GenFlex HD Composite ISO

Minimum 1 1/2" thick 1:1.78 ft<sup>2</sup> 1 or 2 with 3

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

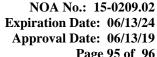
Membrane: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2"

wide side laps.

**Maximum Design** 

**Pressure:** 

-75 psf. (See General Limitation #7)



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## **CONCRETE DECK SYSTEM LIMITATIONS:**

 If mechanical attachment to the structural deck through the lightweight insulating concrete is proposed, a field withdrawal resistance testing shall be performed to determine equivalent or enhanced fastener patterns and density. All testing and fastening design shall be in compliance with Testing Application Standard TAS 105 and Roofing Application Standard RAS 117 and/or RAS 137, calculations shall be signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant.

## **GENERAL LIMITATIONS:**

- 1. Fire classification is not part of this acceptance; refer to a current Approved Roofing Materials Directory for fire ratings of this product.
- 2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer.
- 3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
- 4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each side lap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq.

## Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf.

- 5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. Insulation attachment shall not be acceptable.
- 6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
- 7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117 and/or RAS 137. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant (When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)
- 8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform to Roofing Application Standard RAS 111 and applicable wind load requirements.
- 9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). (When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)
- 10. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 9N-3 of the Florida Administrative Code.

## END OF THIS ACCEPTANCE



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